



## EXHIBIT "B"

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## Paracel BLAST Results

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MEGABLAST 1.2.3-Paracel [2001-11-20]

**Reference:**

Zheng Zhang, Scott Schwartz, Lukas Wagner, and Webb Miller (2000),  
"A greedy algorithm for aligning DNA sequences",  
J Comput Biol 2000; 7(1-2):203-14.

**Database:** human\_genome

643 sequences; 200,654,690,654 total letters

**Query=** LEX 129 SEQ ID NO:1  
(3648 letters)

Sequences producing significant alignments:

Score (bits)	E Value
-----------------	------------

chr10.25000001-30000000 2981 0.0

>chr10.25000001-30000000  
Length = 4999999

Score = 2981 bits (1504), Expect = 0.0

Identities = 1504/1504 (100%)

Strand = Plus / Plus

Query: 2145 ggacgagctaaaaactctatgccactggaaatataaaaagaaaagatgtac 2204

Sbjct: 1036939 ggacgagctaaaaactctatgccactggaaatataaaaagaaaagatgtac  
1036998

Query: 2205 aaacaaccccacccatccagaaaaagcggtgctcgaaaaaggccatgtcgatcat 2264

Sbjct: 1036999 aaacaaccccacccatccagaaaaagcggtgctcgaaaaaggccatgtcgatcat  
1037058

Query: 2265 gagacgcattacggagatcccagagacagtccggcactgtctaaaggacaagg 2324

Sbjct: 1037059 gagacgcattacggagatcccagagacagtccggcactgtctaaaggacaagg  
1037118

Query: 2325 gggcgccgaccatggcacagccaaaggcactgccctcatcaggaagaaccccccagatc 2384

Sbjct: 1037119 gggcgccgaccatggcacagccaaaggcactgccctcatcaggaagaaccccccagatc  
1037178

Query: 2385 ttcaaggaaacacaggaaatccaaggaggagaccctgaaaaaccgagtcttctcactcaa 2444

Sbjct: 1037179 ttcaaggaaacacaggaaatccaaggaggagaccctgaaaaaccgagtcttctcactcaa  
1037238

Query: 2445 gaaatcccacacgacttatgaccacgtgagagaccaaacggaagagtccagtagcctacc 2504  
Sbjct: 1037239 gaaatcccacacgacttatgaccacgtgagagaccaaacggaagagtccagtagcctacc  
1037298

Query: 2505 cacagaaagccaagaggaggagacaacagaaaattccacacttggaatccctgtcggtaa 2564  
Sbjct: 1037299 cacagaaagccaagaggaggagacaacagaaaattccacacttggaatccctgtcggtaa  
1037358

Query: 2565 aaaactaacacaaaaactaaaagaagacagcgaggctgagtccacggagtccgtgccgtt 2624  
Sbjct: 1037359 aaaactaacacaaaaactaaaagaagacagcgaggctgagtccacggagtccgtgccgtt  
1037418

Query: 2625 ggtgtcaagtcagcaagcgctcacaacctcagtcagagaagaaaactggcacccacg 2684  
Sbjct: 1037419 ggtgtcaagtcagcaagcgctcacaacctcagtcagagaagaaaactggcacccacg  
1037478

Query: 2685 aacatcgatgttacagaagtctctcagtgtcatagcaagcgccaaggagaagactcttgg 2744  
Sbjct: 1037479 aacatcgatgttacagaagtctctcagtgtcatagcaagcgccaaggagaagactcttgg  
1037538

Query: 2745 attagctggaaaacccaaacacgagggtgtggagaacgcactaaatccagaaaccttt 2804  
Sbjct: 1037539 attagctggaaaacccaaacacgagggtgtggagaacgcactaaatccagaaaccttt  
1037598

Query: 2805 gccaaaagataaagagacaaacagaaatcactcaaattctgataaacacagagactaaaga 2864  
Sbjct: 1037599 gccaaaagataaagagacaaacagaaatcactcaaattctgataaacacagagactaaaga  
1037658

Query: 2865 tcctccccccaaaactcaaattctcgaggagccaagaaagcctcagaaatctggat 2924  
Sbjct: 1037659 tcctccccccaaaactcaaattctcgaggagccaagaaagcctcagaaatctggat  
1037718

Query: 2925 tatgaaacaacaagggtcaacccaccactgccaattctgacctgaaccaggcaccac 2984  
Sbjct: 1037719 tatgaaacaacaagggtcaacccaccactgccaattctgacctgaaccaggcaccac  
1037778

Query: 2985 ccagatgaaggacaacttgcacattggggaggtgtgccttggaggtttatgacctgac 3044

Sbjct: 1037779 ccagatgaaggacaacttgcacattggggaggtgtgccttggaggttatgacctgac  
1037838

Query: 3045 ccctggtcctgtgccttcagaatcaaaagtcaaaagcacgtatctattgtggctctga 3104  
||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1037839 ccctggtcctgtgccttcagaatcaaaagtcaaaagcacgtatctattgtggctctga  
1037898

Query: 3105 aatggagaaaaaccccacttttccttaaggagaaatctcaccacaaggcctaaggcagc 3164  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1037899 aatggagaaaaaccccacttttccttaaggagaaatctcaccacaaggcctaaggcagc  
1037958

Query: 3165 tgaggttgcagcaatccaatcagaagcgcatacgataaggctgaagtatgccttggga 3224  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1037959 tgaggttgcagcaatccaatcagaagcgcatacgataaggctgaagtatgccttggga  
1038018

Query: 3225 gagccaaggccagtcatttggaaagatgagaagctttgattccaagactccagttct 3284  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038019 gagccaaggccagtcatttggaaagatgagaagctttgattccaagactccagttct  
1038078

Query: 3285 cccagagagggcaaaagaggagaacggaggtcagcctcgtgcagccaatgtgtgtctgg 3344  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038079 cccagagagggcaaaagaggagaacggaggtcagcctcgtgcagccaatgtgtgtctgg  
1038138

Query: 3345 gcagagcgaagaactgcccccaagctgttagcataaaaacagagaatgaaaatctcaa 3404  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038139 gcagagcgaagaactgcccccaagctgttagcataaaaacagagaatgaaaatctcaa  
1038198

Query: 3405 ccaaataggacaccaggaaaaaaagacatcttcttgcaggagaatgtgcgtggctcta 3464  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038199 ccaaataggacaccaggaaaaaaagacatcttcttgcaggagaatgtgcgtggctcta  
1038258

Query: 3465 taactcaagtaataacttccagcaaccttaacatcacgagcagaggttgtccttggga 3524  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038259 taactcaagtaataacttccagcaaccttaacatcacgagcagaggttgtccttggga  
1038318

Query: 3525 gttttagacccaggctcaaccaatgctggaaagaagtgttagcttacctgccttctgc 3584  
||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 1038319 gttttagacccaggctcaaccaatgctggaaagaagtgttagcttacctgccttctgc  
1038378

Query: 3585 tctaagtgcaaataagatagcagggcttaggaaagaagagatctggatagttttaagt 3644  
Sbjct: 1038379 tctaagtgcaaataagatagcagggcttaggaaagaagagatctggatagttttaagt  
1038438

Query: 3645 gtag 3648  
Sbjct: 1038439 gtag 1038442

Score = 1790 bits (903), Expect = 0.0  
Identities = 903/903 (100%)  
Strand = Plus / Plus

Query: 1 atgggagccatggcttacccttactcctctgcctcctgcttgcctagctgggattggga 60  
Sbjct: 614589 atgggagccatggcttacccttactcctctgcctcctgcttgcctagctgggattggga 614648

Query: 61 gctgttggcgccagccgcgaccccaaggacggccggattccctcgagagaggaccccg 120  
Sbjct: 614649 gctgttggcgccagccgcgaccccaaggacggccggattccctcgagagaggaccccg 614708

Query: 121 aagggaaagccgcacgcccagcagccgggtcgagcctctgcctcgactcctcggtccc 180  
Sbjct: 614709 aagggaaagccgcacgcccagcagccgggtcgagcctctgcctcgactcctcggtccc 614768

Query: 181 tggagccgctccaccgatggcaccatcttggcgccagaaactcgccgaggaggtgcccattg 240  
Sbjct: 614769 tggagccgctccaccgatggcaccatcttggcgccagaaactcgccgaggaggtgcccattg 614828

Query: 241 gacgtggcttacccatgtggcaccatcttggcgccagaaactcgccgaggaggtgcccattg 300  
Sbjct: 614829 gacgtggcttacccatgtggcaccatcttggcgccagaaactcgccgaggaggtgcccattg 614888

Query: 301 ggccgctacgagttggcgccctgcggggaaatggccagccctggccagcgccgcaccc 360  
Sbjct: 614889 ggccgctacgagttggcgccctgcggggaaatggccagccctggccagcgccgcaccc 614948

Query: 361 tccttgcaccggcgctggacacactgacacacgcccaccaacttcctcaacgtatgt 420  
Sbjct: 614949 tccttgcaccggcgctggacacactgacacacgcccaccaacttcctcaacgtatgt 615008

Query: 421 cagagcaataagtcgcggagcagaacttgcaggacgacactggattgtaccaggcgctg 480  
Sbjct: 615009 cagagcaataagtcgcggagcagaacttgcaggacgacactggattgtaccaggcgctg 615068

Query: 481 gtgtggagccttctggagggcgagccagcatctccggcgccatcacccatcagcacc 540  
Sbjct: 615069 gtgtggagccttctggagggcgagccagcatctccggcgccatcacccatcagcacc 615128

Query: 541 gattcgctgtccgcaccggccccacaggtcttcctccaggccacgcgcgaggagagccgc 600  
Sbjct: 615129 gattcgctgtccgcaccggccccacaggtcttcctccaggccacgcgcgaggagagccgc 615188

Query: 601 atcctgctccaagacctgtcctcctccgcaccccacctggccaacgcccactctggagacc 660  
Sbjct: 615189 atcctgctccaagacctgtcctcctccgcaccccacctggccaacgcccactctggagacc 615248

Query: 661 gagtggttccacggcctccggcgcaagtggaggccccacttacaccggccggccaaat 720  
Sbjct: 615249 gagtggttccacggcctccggcgcaagtggaggccccacttacaccggccggccaaat 615308

Query: 721 cagggggccccggggcctggccacagctggcgcccaaggacgggctggcgccccacaag 780  
Sbjct: 615309 cagggggccccggggcctggccacagctggcgcccaaggacgggctggcgccccacaag 615368

Query: 781 agccacttcaagtggtctccgccttatctggagtgcgagaacgggagttacaagcccggg 840  
Sbjct: 615369 agccacttcaagtggtctccgccttatctggagtgcgagaacgggagttacaagcccggg 615428

Query: 841 tggctggttactcttcctctgcacatctacgggtgcagcctaacctggccggaaattc 900  
Sbjct: 615429 tggctggttactcttcctctgcacatctacgggtgcagcctaacctggccggaaattc 615488

Query: 901 agg 903  
Sbjct: 615489 agg 615491

Score = 478 bits (241), Expect = e-131  
Identities = 241/241 (100%)  
Strand = Plus / Plus

Query: 1513 agggtttgaagggtttcttcacgaacggctcaacgaattccatatatgactggcgga 1572  
Sbjct: 1011815 agggtttgaagggtttcttcacgaacggctcaacgaattccatatatgactggcgga  
1011874

Query: 1573 cgggtcatgaggatgctggcagtaatactctggtagtgggtttctcattggctgg 1632  
Sbjct: 1011816 cgggtcatgaggatgctggcagtaatactctggtagtgggtttctcattggctgg  
1011875

Sbjct: 1011875 cgggtcatgaggatgctggcagtaataactcttggtagtgtttgttctattggctgg  
1011934

Query: 1633 acttcatctgtgtgccagaattggagaaacagattcacttattggccagggaaaaca 1692  
|||||||

Sbjct: 1011935 acttcatctgtgtgccagaattggagaaacagattcacttattggccagggaaaaca  
1011994

Query: 1693 tccgatcacccatcttcaatatgtgcctcattgaccgctggactacatgacagcagtt 1752  
|||||||

Sbjct: 1011995 tccgatcacccatcttcaatatgtgcctcattgaccgctggactacatgacagcagtt  
1012054

Query: 1753 g 1753

Sbjct: 1012055 g 1012055

Score = 438 bits (221), Expect = e-119  
Identities = 231/234 (98%), Gaps = 1/234 (0%)  
Strand = Plus / Plus

Query: 1102 aacttcggagaagggtccggatcagcatattcaggaagtacaaaagatgtgtcagaa 1161  
|||||||

Sbjct: 851409 aacttcag-gaagggtccggatcagcatattcaggaagtacaaaagatgtgtcagaa 851467

Query: 1162 gaagcctatgtctgcctcacctgcaggaggctgccccttctgtgtatgacagccca 1221  
|||||||

Sbjct: 851468 gaagcctatgtctgcctcacctgcaggaggctgccccttctgtgtatgacagccca 851527

Query: 1222 tgcttcgtccaggaagataagtattacgacttgccatcatctccttccaaggcctgtgt 1281  
|||||||  
Sbjct: 851528 tgcttcgtccaggaagataagtattacgacttgccatcatctccttccaaggcctgtgt 851587

Query: 1282 atgctgctcgacttcgttagcatgtgggtctaccactttcgcaaagcaaag 1335  
|||||||  
Sbjct: 851588 atgctgctcgacttcgttagcatgtgggtctaccactttcgcaaagcaaag 851641

Score = 297 bits (150), Expect = 2e-77  
Identities = 150/150 (100%)  
Strand = Plus / Plus

Query: 1997 agtttacattcaagcaataaccacgagatgatattgctacagaagcatatgaggatg 2056  
|||||||

Sbjct: 1035809 agtttacattcaagcaataaccacgagatgatattgctacagaagcatatgaggatg  
1035868

Query: 2057 agctagacatggccgatctggatcctacctgaacagcagtatcaattcagcctggagtg 2116  
||||||||||||||||||||||||||||||||||||||||  
Sbjct: 1035869 agctagacatggccgatctggatcctacctgaacagcagtatcaattcagcctggagtg  
1035928

Query: 2117 agcacagcttggatccagaggacattcggg 2146  
||||||||||||||||||||||||||||  
Sbjct: 1035929 agcacagcttggatccagaggacattcggg 1035958

Score = 278 bits (140), Expect = 2e-71  
Identities = 140/140 (100%)  
Strand = Plus / Plus

Query: 1753 gctgaattttattcctcttgtgggtgttatctctgctatgcagtgcggacagtccca 1812  
||||||||||||||||||||||||||||||||||||||||  
Sbjct: 1028174 gctgaattttattcctcttgtgggtgttatctctgctatgcagtgcggacagtccca  
1028233

Query: 1813 tcggcattccatgagccccgctatatggctgtgcagttcacaatgagctcatcatct 1872  
||||||||||||||||||||||||||||||||||||  
Sbjct: 1028234 tcggcattccatgagccccgctatatggctgtgcagttcacaatgagctcatcatct  
1028293

Query: 1873 gctatattccataacaattag 1892  
||||||||||||||||  
Sbjct: 1028294 gctatattccataacaattag 1028313

Score = 220 bits (111), Expect = 5e-54  
Identities = 111/111 (100%)  
Strand = Plus / Plus

Query: 1405 gttgttattttgtactttgagccaagcacattcgctgtattctcctaagatggctcg 1464  
||||||||||||||||||||||||||||||||||||  
Sbjct: 990144 gttgttattttgtactttgagccaagcacattcgctgtattctcctaagatggctcg 990203

Query: 1465 cttctcggtttgctactgtttacggaactgtcactctcaaacttcacagg 1515  
||||||||||||||||||||||||||||  
Sbjct: 990204 cttctcggtttgctactgtttacggaactgtcactctcaaacttcacagg 990254

Score = 214 bits (108), Expect = 3e-52  
Identities = 108/108 (100%)  
Strand = Plus / Plus

Query: 901 aggggtgtcatgaaaagtgcacataaatcttcagaaagtggacattgaccaatgtcaagt 960  
|||  
Sbjct: 660218 aggggtgtcatgaaaagtgcacataaatcttcagaaagtggacattgaccaatgtcaagt 660277

Score = 214 bits (108), Expect = 3e-52  
Identities = 108/108 (100%)  
Strand = Plus / Plus

Query: 1951 actcattgactgtgacagtaccattgggtgctttgattccaaag 1998  
|||  
Sbjct: 1033518 actcattgactgtgacagtaccattgggtgctttgattccaaag 1033565

Score = 212 bits (107), Expect = 1e-51  
Identities = 110/111 (99%)  
Strand = Plus / Plus

Query: 1002 ttcagagtgtatgccaattaaaggcctaggattcggttcttggagcctatgagtgcattt 1061  
Sbjct: 835072 ttcatagtgatgccaattaaaggcctaggattcggttcttggagcctatgagtgcattt 835131

Query: 1062 caaaggcaggatttatcatcctggagtcttaccagtgaacaactttcgag 1112  
Sbjct: 835132 caaaggcaggatttatcatcctggagtcttaccagtgaacaactttcgag 835182

Score = 145 bits (73), Expect = 2e-31  
Identities = 73/73 (100%)  
Strand = Plus / Plus

Query: 1334 agagcatccgggcatcgcccttatcctgttggaaacgatccctttggatctctgctcc 1393  
Sbjct: 905817 agagcatccgggcatcgcccttatcctgttggaaacgatccctttggatctctgctcc 905876

Sbjct: 905877 tatactttccagt 905889

Database: mouse\_genome

Posted date: Jul 30, 2003 8:10 AM

Number of letters in database: 200,654,690,654

Number of sequences in database: 643

Lambda K H  
1.37 0.711 1.31

Gapped

Lambda K H  
1.37 0.711 1.31

Matrix: blastn matrix:1 -3

Gap Penalties: Existence: 0, Extension: 0

Number of Hits to DB: 0

length of query: 7298

length of database: 200,654,690,654

effective HSP length: 22

effective length of query: 3626

effective search space used: 0

T: 0

A: 0

X1: 0 (0.0 bits)

X2: 20 (39.6 bits)

S1: 12 (24.3 bits)

S2: 24 (48.1 bits)